UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,481	09/17/2003	Ken W. Anderson	ZM061/02001	4371

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EXAMINER
BROWN JR, NATHAN H

ART UNIT	PAPER NUMBER
2129	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/664,481	ANDERSON ET AL.
	Examiner	Art Unit	
	NATHAN H. BROWN JR	2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>(3)</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>17 September 2003</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-52</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1, 30 and 46</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>1/5/04</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

Examiner's Detailed Office Action

1.   This Office is responsive to application 10/664,481, filed

September 17, 2003.

2.   Claims 1-52 have been examined.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms

the basis for all obviousness rejections set forth in this

Office action:

> (a) A patent may not be obtained though the invention is not
> identically disclosed or described as set forth in section 102 of this
> title, if the differences between the subject matter sought to be
> patented and the prior art are such that the subject matter as a whole
> would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the
> invention was made.

4.   Claim 1 is rejected under 35 U.S.C. 103(a) as being

unpatentable over *Nations et al.* (*Nations*) (USPNUM: 6,879,808)

in view of *Zaklika et al.* (*Zaklika*) (USPGPUBS: 2003/0012437

A1).

Regarding claim 1. *Nations* teaches a method of scheduling and

usage of bandwidth (see col. 3, lines 14-54, "The two-way

communication link may comprise a low bandwidth two-way

communication link, or a low bandwidth request link and a high

bandwidth data broadcast link. The high bandwidth link

preferably broadcasts a wide area coverage beam to allows the

requested information to be received by multiple user terminals.

The user terminal and the gateway each preferably include a

cache. Software at the gateway operates to deliver requested

data along with data related to the requested data to requesting

users using a user's request history and/or user profile.

...

The most requested information is broadcast at predetermined

intervals, such as every 7-10 seconds, for example, to simulate

real-time information broadcasts.") comprising the steps of:

     a. capturing digital video and storing said video on a

computer (*see* Fig. 1 and col. 7, lines 16-18, *Examiner*

interprets "Video data downloaded from the cable company 23 is

transferred by way of the Internet 21 to the gateway 15" to

comprise capturing digital video from the cable company and

storing said video on a computer (i.e., the "GATEWAY" (Item 15)

"CACHE" (Item 17)).);

b. capturing digital data associated with said digital
video (*see* col. 7, line 65 to col. 8, line 3, "The system 10
allows content providers and applications service providers 24
to access the network implemented by the system 10 to reach end
user 30 with their product offerings." and col. 8, lines 6-8,
"Content received at the network operations center 12 is stored
on servers.", *Examiner interprets* "product offerings" *to
comprise digital data associated with said digital video.*);

c. transmitting said digital data associated with said
digital video to a central data server (*see* above, Examiner
interprets "content providers and applications service
providers" to transmit to the "*network operations center 12*".
Examiner interprets "*product offerings*" *to comprise said digital
data associated with said digital video. Examiner interprets
the servers of the* "*network operations center 12*" *to be central
data servers.*);

f. transmitting said digital video (*see* above).

Nations does not teach:

d. developing at least one compression curve for a
customer;

e. instructing said computer how to compress said digital
video.

However, Zaklika does teach:

d. developing at least one compression curve (*see* Fig. 2 and p. 4, para. [0038], col. 2, *Examiner interprets a "midtone compression curve" to be a compression curve.*) for a customer (*see* p. 4, para. [0037], Examiner interprets "the user" to be a customer (e.g, a "graphics expert"—see p. 3, para. [0022]).);

e. instructing said computer how to compress said digital video (*see* p. 6, paras. [0077]-[0079], *Examiner interprets "a system for processing image data comprising a computer" that "displays a digital or analog control element that controls both compression and expansion of midtones" to comprise instructing said computer how to compress said digital video.*).

It would have been obvious at the time the invention was made to persons having ordinary skill in the art to combine *Nations* with *Zaklika* as image processing software providing the features of *Zaklika's* invention would have been well known to the designers of software systems for quality monitoring and control used in satellite uplink operations in 2001. Since the system recited by *Nations* includes a network operations center which "monitors transmission to ensure a high quality of server" (*see* col. 8, lines 6-16), it would have been obvious at the time the invention was made to persons having ordinary skill in the art

to combine *Nations* with *Zaklika* to provide an image monitoring

workstation for a network operations center.

5.   Claim 30 is rejected under 35 U.S.C. 103(a) as being

unpatentable over *Nations* in view of *Batra et al. (Batra),*

"Effective Algorithms for Video Transmission over Wireless

Channels", 1998.

Regarding claim 30. *Nations* teaches a method for scheduling and

usage of satellite bandwidth (*see* col. 3, lines 8-54, "An

exemplary system comprises a two-way communication link having

at least one satellite. At least one user terminal is provided

that has two-way communication with the two-way communication

link. At least one gateway is provided that has access to data

and has two-way communication with the two-way communication

link.

     The two-way communication link may comprise a low bandwidth

two-way communication link, or a low bandwidth request link and

a high bandwidth data broadcast link. The high bandwidth link

preferably broadcasts a wide area coverage beam to allows the

requested information to be received by multiple user terminals.

The user terminal and the gateway each preferably include a

cache. Software at the gateway operates to deliver requested

data along with data related to the requested data to requesting

users using a user's request history and/or user profile.

...

The most requested information is broadcast at predetermined

intervals, such as every 7-10 seconds, for example, to simulate

real-time information broadcasts."), comprising the steps of:

   a. continuously deriving an artificial intelligence model

for ranking data captured by electronic devices (see col. 8,

lines 52-58, *Examiner interprets a "smart local cache" with the*

capability to recognize "certain types of frequently-used data"

to comprise a continuously derived (since, presumably, video

data comprises a non-stationary distribution) artificial

intelligence model (e.g., a statistical pattern recognizer) for

ranking data captured (e.g., stored) by electronic devices.);

   c. capturing said data from an electronic device at a

remote site (*see* Fig. 1 and col. 7, lines 16-18, *Examiner*

interprets video "data downloaded from the cable company

23...transferred by way of the Internet 21 to the gateway 15" to

comprise capturing said data (i.e., digital video) from an

electronic device at a remote site (i.e., the cable company's

computer).);

d. capturing video associated with said data at said
remote site (*see above*).

Nations does not teach:

b. continuously deriving an event resource allocation model
for determining compression routines and managing transmission
of compressed video from a remote site to a central data center.

Batra does teach:

b. continuously deriving an event resource allocation model
for determining compression routines and managing transmission
of compressed video from a remote site to a central data center
(*see* Abstract and sections 2.3, 2.3, and 5.3).

It would have been obvious at the time the invention was made to
persons having ordinary skill in the art to combine *Nations* with
Batra as the select ARQ schemes for segmentation and channel
delay control taught by *Batra* would have been well known to
provide parameters for channel resource allocation which could
be continuously adapted within known constraints to those of
ordinary skill in the art of video compression seeking to
optimize compression rates for varying data loads and

compression quality requirements as part of quality control for

satellite video uplink.

6.   Claim 46 is rejected under 35 U.S.C. 103(a) as being

unpatentable over *Nations* in view of *Vidyakin*, "DIGITAL VIDEO

VIA SATELLITES", 2001.

Regarding claim 46. *Nations* teaches a method for scheduling and

usage of satellite bandwidth (*see* col. 3, lines 8-54, "An

exemplary system comprises a two-way communication link having

at least one satellite. At least one user terminal is provided

that has two-way communication with the two-way communication

link. At least one gateway is provided that has access to data

and has two-way communication with the two-way communication

link.

    The two-way communication link may comprise a low bandwidth

two-way communication link, or a low bandwidth request link and

a high bandwidth data broadcast link. The high bandwidth link

preferably broadcasts a wide area coverage beam to allows the

requested information to be received by multiple user terminals.

The user terminal and the gateway each preferably include a

cache. Software at the gateway operates to deliver requested

data along with data related to the requested data to requesting

users using a user's request history and/or user profile.

...

The most requested information is broadcast at predetermined

intervals, such as every 7-10 seconds, for example, to simulate

real-time information broadcasts."), comprising:

    a. capturing data from an electronic device (*see* Fig. 1 and

col. 7, lines 16-18, *Examiner interprets video "data downloaded*

from the cable company 23...transferred by way of the Internet

21 to the gateway 15" to comprise capturing data (i.e., digital

video) from the cable company's electronic device (i.e.,

computer).);

    b. capturing video associated with said electronic device

(*see above*);

    c. transmitting said data to a central data server (*see*

above, Examiner interprets "content providers and applications

service providers" to transmit to the *"network operations center*

12". Examiner interprets "product offerings" to comprise said

data. Examiner interprets the servers of the "network

operations center 12" to be central data servers.);

    d. said central data server analyzing said data and

ranking event represented by said data (see col. 8, lines 52-58,

Examiner interprets the capability of the "smart local cache"

recognizing "certain types of frequently-used data" to comprise

analyzing said data and ranking an event represented by said

data (i.e., an occurrence or receipt of a certain type "of

frequently-used data").);

    f. said computer transmitting said video to said central

data server (*see above, Examiner interprets "content providers*

and applications service providers" to transmit to the "network

operations center 12". Examiner interprets "product offerings"

to comprise said video. Examiner interprets the servers of the

"network operations center 12" to be central data servers.).

Nations does not teach:

    e. said central data server instructing a computer to

compress pre-selected video.

Vidyakin does teach:

    e. said central data server instructing a computer to

compress pre-selected video (*see p. 3, Examiner interprets "the*

process of video digitizing..." to comprise a central data

server instructing (by steps 1.-4.) a computer to compress pre-

selected video (i.e., video enroute to a satellite

transponder).).

It would have been obvious at the time the invention was made to persons having ordinary skill in the art to combine *Nations* with *Vidyakin* as digital data compression for satellites, first developed in the early 1970s, was well known at by the time of Nations' invention. The steps of compression taught by *Vidyakin* would have been obvious to anyone of ordinary skill in the art of video image processing as rendering large data storage (and thus, data transmission) savings and therefore particularly well suited to satellite video transmission.

Allowable Subject Matter

7. Claims 2-29, 31-45, and 47-52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan H. Brown, Jr. whose telephone number is 571-272- 8632. The examiner can normally be reached on M-F 0830-1700. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Vincent can be reached on 571-272-3080. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Nathan H. Brown, Jr./
Examiner, Art Unit 2129
October 8, 2009

/David R Vincent/

Supervisory Patent Examiner, Art Unit 2129